CITY COUNCIL APPROVES DRINKING WATER TREATMENT FACILITY

On November 3, 2003, the Geneva City Council approved the Drinking Water Facility Plan and authorized City staff to proceed to final design engineering for the project including a membrane softening **(reverse osmosis)** drinking water treatment facility. When completed, the facility will be capable of producing 8.0 million gallons of high quality drinking water per day with a preliminary estimated cost of $25,661,000.

The project is proposed to be financed through Illinois Environmental Protection Agency (IEPA) low interest loans and revenue bonds to be repaid through water rates. The City will be performing a water rate study to determine the actual impact on water bills, however City staff estimates the average customer who utilizes 1,000 cubic feet of water per month could see the water portion of their bill increase by $11.60 - $13.78 (80 – 95%) per month.

Conceptual Site Plan of Geneva's Drinking Water Treatment Facility

This membrane treatment facility will also reduce the naturally occurring radium in the City's deep wells below USEPA combined standard is 5.0 pico curies per liter (pCiL) (1 pCiL = 1 trillionth of a gram of Radium). Geneva's most recent analysis was 3.7 pCiL. The project will also provide treatment flexibility to meet future water quality regulations and provide adequate water supply capacity to meet future water demands, improved aquifer management and reduce the hardness of Geneva's drinking water.

The City estimates approximately 60 – 70% of customers currently utilize home water softeners. For many, the proposed membrane softening treatment facility will eliminate the need for the softener. The estimated monthly savings for eliminating salt usage and softener maintenance is $7 to $15 per month. Those who choose to continue to use their softener will experience a significant reduction in salt usage and an increase in the life expectancy of the softener by as much as 100%. Other benefits customers will experience will be an increase in the life of hot water heaters, icemakers, dishwashers, boilers and plumbing systems. The scale buildup on showers, sinks and bathtubs normally associated with hard water will also be significantly reduced.

Design engineering is expected to take approximately one year to complete and construction could begin as early as June 2005 with a completion sometime in the fall of 2007.


Conceptual Architectural Rendering of
Geneva's Drinking Water Treatment Facility

Another important part of the project is water resource management. The City is proposing to install several new water supply wells (both deep and shallow) to serve the City's needs into the future. The shallow wells, which will be located in the St. Charles Aquifer, are especially susceptible to interference from the ground surface. The City is proposing to locate two of these shallow wells within the Prairie Green Corridor in order to maximize our ability to protect them. By utilizing a combination of deep and shallow well water, the City will be able to adequately manage the water supply resources to the maximum extent possible.

The City is currently negotiating for the acquisition of property for the facility at the southwest corner of Peck and Keslinger Roads. A preliminary (conceptual) site plan and architectural rendering has been developed that will compliment the significant investment the public has made in open space initiatives in the "Prairie Green Corridor" from Route 38 to Fabyan Parkway.

Membrane (reverse osmosis) treatment provides an opportunity to maintain all of the water treatment appurtenances within a building structure that can easily be secured. This situation provides an opportunity to allow the balance of the site to remain open to public access. A bike trail and walking path is proposed to provide the public with direct access to the site as well as enjoy connections to existing and future trails in the Prairie Green Corridor.

The barn-like façade proposed in the architectural rendering will further allow the facility to maintain the natural rural character of the area consistent with western Kane County.